

1. A switching controller in whose control loop an error signal amplifier (KO) is provided, which essentially exhibits P action and which acts on a pulse-duration modulator or pulse-frequency modulator (PBM) for the final controlling element (S1) of the switching controller, comprising the following features:
 - an evaluation circuit (A) is provided for detecting the load performance of the switching controller;
 - a coupling device (E) for the signal that is detected by the evaluation circuit (A) is provided between the error signal amplifier (KO) and the pulse-duration or pulse-frequency modulator (PBM).
2. The switching controller as recited in Claim 1, characterized in that the coupling device (E) at the input of the pulse-duration or pulse-frequency modulator (PBM) is composed of an adding circuit or an adding node, where the output signal from the error signal amplifier (KO) is gated with the signal detected by the evaluation circuit (A).
3. The switching controller as recited in Claim 1 or 2, characterized in that the amplitude of the output signal from the error signal amplifier (KO), i.e. the gain of the error signal amplifier, is modified in comparison with a switching controller without a coupling device to a degree corresponding to the load-step-dependent quantity detected by the evaluation circuit (A).

4. The switching controller as recited in one of Claims 1 through 3,

characterized in that

the signal detected by the evaluation circuit (A) is the alternating component of the load current (IL) of the switching controller.

5. The switching controller as recited in one of Claims 2 through 4,

characterized in that

the signals that are fed to the adding circuit (E), i.e., to the adding node, are routed via resistors (RF1, RF2) of equal value.

6. The switching controller as recited in one of Claims 1 through 5,

characterized in that

the signal detected by the evaluation circuit (A) is provided as a precontrol signal for the pulse-duration or pulse-frequency modulator (PBM), the time constant of the evaluation circuit (A) being selected such that the error signal amplifier (KO) can compensate for the decaying control deviation caused by the precontrol signal.

7. The switching controller as recited in one of Claims 1 through 6,

characterized in that

the evaluation circuit (A) is composed of a measuring current transformer (SW) having a downstream amplifier (V).

8. The switching controller as recited in one of Claims 1 through 7, characterized in that the pulse-duration or pulse-frequency modulator (PBM) is fed the output signal from the error amplifier (KO) together with the superimposed output signal of the evaluation circuit (A), on the one hand, and the combination of at least two of the following signals, on the other hand:

- a saw-tooth signal (Q_{SK}) of constant amplitude,
- a signal ($RM \cdot I_L$) that is proportional to the current through the final controlling element (S1),
- a saw-tooth signal (Q_{SV}) whose peak amplitude is selected in proportion to the integrated input voltage of the switching controller,
- a d.c. voltage signal (U_w) which is selected in proportion to the level of the input voltage of the switching controller.

9. The switching controller as recited in one of the Claims 1 through 8, characterized in that the collector current (I_C) of a traveling-wave tube (WF) is detected via the evaluation circuit (A).

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